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THE ARMY STOCK FUND--FRIEND OR FOE

John R. Brinton

Army War College
Carlisle Barracks, Pennsylvania

28 May 1975

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USAWC MILITARY RESEARCH PROGRAM PAPER

THE ARMY STOCK FUND--FRIEND OR FOE

INDIVIDUAL RESEARCH PROJECT

by

Colonel John R. Brinton
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and the inability of the Wholesale Supply System to meet its goal of 85% stock availability indicates that a close evaluation of the system is required. Various independent studies as well as a GAO report to Congress indicate that the current method of operating the Wholesale Stock Fund does degrade our stock availability, creates poor management practices and impacts on unit readiness. A possible alternate method of operating the Wholesale Stock Fund System is discussed.

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The basic question is whether or not the current method of operating the Wholesale Stock Fund System at the National Inventory Control Points (NICP) impacts on the Army's operational readiness and stock availability. Data was gathered using a literature search, interviews with NICP and budget personnel, and personal experience gained as the Director of the Materiel Management Director (NICP) TACOM. The growing emphasis on unit readiness and the inability of the Wholesale Supply System to meet its goal of 85% stock availability indicates that a close evaluation of the system is required. Various independent studies as well as a GAO report to Congress indicate that the current method of operating the Wholesale Stock Fund does degrade our stock availability, creates poor management practices and impacts on unit readiness. A possible alternate method of operating the Wholesale Stock Fund System is discussed.

Colonel John R. Brinton is a student at the US Army War College. He is a graduate of Benedictine College, Kansas and holds a master's degree in Business Administration from Shippensburg State College. Prior to attending the War College COL Brinton was Director of the Materiel Management Directorate (NICP) US Army Tank Automotive Command Warren, Michigan.

I am sure we have all heard the old saying: "For the want of a nail, the shoe was lost; for the want of a shoe" The supply of nonrepairable secondary items to include repair parts has created logistical problems since man first began equipping Armies. Even today with our vast computer supported supply system we still hear the familiar cry: "For the want of a part, the vehicle was lost; for the want of a vehicle, unit readiness was lost"

The sole purpose of our wholesale logistics system is to provide support to the operating units. If we look at this support in terms of stock availability or those requisitions that are filled at the Army's National Inventory Control Points (NICPs) when first received, (FIGURE 1), we certainly cannot claim any notoriety for a job well done.

The Army has never been able to meet its overall goal of 85% stock availability. We are just not providing the logistical support the operating forces need and deserve. Many studies have been written, many words have been spoken, and many improvements in our logistics system have been made yet we still fail to meet our goal. Why? One of the major reasons is the way NICP's are funded to buy stock, the wholesale stock fund system. The current method of operating the wholesale stock fund impacts on stock availability, causes the materiel managers to resort to poor business practices, increases the overall cost of doing business, and has an adverse impact on force readiness.

One of the basic elements of the current wholesale system that determines whether NICP's can meet their stock availability goal

	PERCENT											
	STOCK AVAILABILITY											
	ARMY MATERIEL COMMAND											
	J	A	S	O	N	D	J	F	M	A	M	J
FY 72	80	79	78	78	78	78	78	77	78	77	76	76
FY 73	73	73	68	68	67	64	64	66	66	68	66	70
FY 74	66	69	68	69	71	70	70	71	71	71	72	72
FY 75	73	73	72	75	75	74	75	73	77			

FIGURE 1

is the availability of money to buy an item when our current parts forecasting system says to buy. If money is not available when the reorder point is reached, timely procurement action cannot be taken. As a result the item will probably go to zero balance and stock availability will be affected. It is the wholesale stock fund that the NICP's must turn to for these funds. Obviously if the NICP's had an unlimited amount of money, they could buy materiel in such quantities that an almost 100% stock availability could be obtained. The NICP's do not, of course, have unlimited resources. Instead, they are charged with providing "effective logistical support to the Armed Forces at the lowest sound cost." This statement of the NICP's mission implies a concept of inventory management, cost versus support, that is fundamental in the commercial world as well as the military. The problem of minimizing inventory investment while maintaining effective support to the customer is always a delicate one. The challenge to the inventory manager is to bring these two factors into balance in such a way that maximum support is obtained at a minimum cost.

The basic tool used by the NICP inventory manager to determine the capital investment needed to provide the supply support required is the Supply Control Study. In the past decade, we have spent a great deal of time and money perfecting our Supply Control Study process. Bigger and better computers and computer programs have given us better demand data and better wholesale inventory visibility and control. We have developed and incorporated into our studies more powerful statistical analysis techniques and trend indicators

and the requirement forecasts currently being provided by our Supply Control Study process are good, not perfect, but good. The requirements forecast is based on a good statistical base that if properly executed will give us the 85% stock availability that we are striving for with a minimum inventory investment.

The problem facing our materiel managers at the NICP's is that the current method of funding inventory requirements, the wholesale stock fund system, does not allow proper implementation of the Supply Control Study process. They cannot, in all cases, buy the quantity of parts forecasted in the study in the proper timeframe. Our stock fund system eventually provides the necessary funds, so we can't blame the system for not funding our requirements. It's just that the funds are not always available at the proper time. We have what amounts to a basic timing problem.

The Supply Control Study computes requirements and directs procurement actions much the same way as our ASL and PLL systems compute requirements and directs reorder action. The Supply Control Study is a little more complicated and sophisticated perhaps, but the basic concept of having various levels that make up the requirement objective (RO) are the same. The administrative lead time (ALT) and procurement lead time (PLT) levels specify the amount of investment that is needed to insure continuing supply while new stock is being purchased and a safety level is added to compensate for minor delays in the replenishment process or unpredictable fluctuation in demands. If we are to provide effective logistical support at the

lowest sound cost, these levels must be kept in proper balance. Much time and effort is spent reviewing and taking actions to reduce administrative lead time to a minimum; our procurement specialists are constantly negotiating with contractors for shorter delivery schedules thus reducing our procurement lead time; and DOD has made exhaustive studies on how to minimize the safety level and still provide an 85% probability that stock will be available when a requisition is received. As a result of these efforts to provide effective logistic support at the lowest possible cost, we have no slack in the system. When the inventory in the depots reaches the reorder point, immediate action must be taken to initiate the procurement process in order to stay within the administrative lead time level. Any delay as a result of inadequate funding authority, either obligation authority or commitment authority, will ultimately result in reduced stock availability.

Under the current stock fund system, each of the NICP's prepares an operating budget that represents the planned program for the budget year. The Supply Control Study requirements forecast based on past demands becomes the basis for the NICP's budget estimate. This forecast is then stratified by quarter against on-hand and due-in inventories. Adjustments are made for any planned changes to inventory levels and the future supply deficit is identified and costed. This process is referred to as the STRAT or stratification process. The STRAT inventory deficit and fund requirements which are based on the Supply Control Study process must then be

modified to meet the requirements of the "budget transition statement." This is where the current system starts to break down. We now get divorced from the Supply Control Study process, the document that drives the procurement activity, and go to an unrelated source for an estimate of future demands. The budget demand estimate as contained in the transition statement is not related to past demands as maintained in the NICP data base on an item-by-item basis. The forecasted demand in the transition statement is based on the gross obligation authority given to the major commands throughout the world. During the NICP's budget review process at Army Material Command (AMC), Department of Army (DA) Department of Defense (DOD), and Office of Management Budget (OMB), the main problem encountered is the difference between what the STRAT says should be funded based on an actual 24 month demand history, and what the budget analyst believes will be the demand based on the gross fund allocation being given to the field. After the budget review process has been completed, the NICP receives an OSD/OMB markup of its stock fund budget estimate together with an approved operating program.

In transmitting the approved program to the NICP's AMC re-states the following basic guidance and policy for the operation of the fund.

Stock fund managers are responsible for managing and executing approved operating programs within the financial resources made available. When actual operations indicate, through analysis of all pertinent performance indicators, that currently available resources are inadequate, an adjustment request with complete justification and a revised phased operating plan proposal will be submitted to this headquarters. Pending

approval of such a proposed revised operating plan, and the allocation of additional resources, if required, operations must be adapted to current resource availability and conducted in accordance with approved operating plans and programs. Under no circumstances will stock fund managers or operators at any level assume that resources will be made available to accommodate their conception of the indicated program requirements. In this regard, operating schedules must not present a program execution plan which reflects the untimely exhaustion of approved financial resources and the obvious need for a program increase during the remainder of the fiscal year.

What are some of the impacts of this budget and apportionment, fund control? The approved program rarely if ever funds the total requirement forecasted by the STRAT. Therefore, unless there is a decrease in demands for an item the reorder warning point will be reached, the funds required may exceed the operating schedule which by direction must not show a projected deficit, the procurement process cannot be started on time and the item will in all likelihood go to zero balance. The GAO in its report to Congress in April of 1974 recognized this problem when they said:

Moreover, purchasing constraints imposed through apportionment of funds have interfered with the ability of stock funds to provide effective customer support and have forced stock fund managers to resort to poor business practices, such as buying less than optimum quantities and incurring unnecessary costs by cancelling purchase orders. Stock funds should be revolving funds, which will enable them to be more responsive to inventory requirements, and funds can be adequately controlled by other than appropriations.

The Logistics Management Institute (LMI) in their study report on the stock fund in 1973 said:

It was found that there is an imbalance between requirements computed in accordance with supply policies and the authority given for acquisition in the stock fund. Supply personnel are unable to order the quantities computed by the economic inventory policy (EIP) formula and, therefore, may be operating at a higher total cost level than necessary.

An LMI study made in 1966 found:

Financial control procedures currently used within DOD stock fund environment can have a negative effect on supply effectiveness.

A more realistic approach to financial control is necessary if adequate logistic support is to be achieved and maintained"

There is more than adequate evidence to indicate that we are paying a high price for operating the wholesale stock fund the way we do. It impacts on our ability to support the field and forces upon the stock fund manager poor and costly management practices. Therefore the operational readiness of the Army suffers. The current stock fund system is not a friend but rather a foe.

If the stock fund is a foe, how can we change it into a friend and still provide effective logistic support at the lowest sound cost? All of the previously mentioned studies provide the answers. In its 1972 study, LMI probably provided the best summary when it recommended going under a capital management system defined as:

The management of inventory on-hand and on-order under a stock fund operated as a revolving fund, with replenishment directed toward attainment of an end of period target
The program plan would state the total level of inventory on-hand and on-order to be reached by the end of the month and would be directed

toward reaching a given level of inventory on-hand and on-order by the end of the fiscal period The revolving fund with capital management places an emphasis on better estimation of sales and returns, and on more accurate calculations (and) use of items in long supply, and provides motivation toward balancing of inventory.

The oldest revolving fund as we know it today was established by the Navy in 1893. It was established to form a working capital fund that would allow the Navy to procure common items of supply in bulk quantities, thereby reducing costs and to permit the storage of these items in depots to meet the projected future needs of the Navy. It was not until the passing of the National Security Act of 1947, as amended, that the other services had the authority to fund their inventories under a revolving concept or stock fund. In hearings before the Senate Armed Forces Committee of the 83d Congress, a stock fund was defined as:

A type of working capital fund established to finance the acquisition and maintenance of materials, supplies, and equipment for sale within a military department It contemplates the operation of the inventory in a fashion similar to the operation of a privately-owned merchandising organization.

When the stock fund was originally installed in the Army, it was understood that it would operate as a revolving funds or "similar to the operation of a privately-owned merchandising organization."

One of the major management problems in the early days of the stock fund was the lack of any way to provide an inventory plan or management control over the NICP inventories. It was in these early days of the stock fund operation that inventory levels throughout

DOD went out of control. DOD/OMB recognized that some form of plan and control was required. As a result, the revolving aspect of the fund below DOD/OMB was withdrawn and the apportionment budget controls initiated. At the time this action was taken there was no other viable system in existence throughout DOD that could provide the required plan and control need. The apportionment budget system did serve its purpose and has done so for many years, but at a price.

Our logistic system has come a long way since the early days of apportionment control. We have better demand data, better computer programs and we have developed probably one of the best inventory management information systems available anywhere in the government or industry, the STRAT. The STRAT is an extremely flexible system that can provide inventory management data in almost any level or summary. It does provide the tool necessary for adequate planning and control using capital inventory management and a revolving fund.

The time for challenging our current stock fund practices is long overdue. We must develop better and more timely ways of supporting our NICP fund requirements. Many people have told us in a variety of studies how to do it and we have a DOD-wide STRAT system that will provide the plan and control data needed.

Now is the time to get rid of our outmoded budget and apportionment system and fully utilize the STRAT for controlling and funding our NICPs. What, for heavens sake, are we waiting for?

BIBLIOGRAPHY

- Commander, US Army Materiel Command AMCSW-KR TWX 312023 December 74, Subject: OSD/OMB Markup of the ASF FY76 and 76T Budget Estimates and FY75 Reapportionment Request.
- Gajalo, S. NICP Forecasting Techniques. Final Report USAMC Project Number 151-66S, September 1967. (IRO AD 822934)
- Department of Defense Instruction 4140.39: Procurement Cycles and Safety Levels of Supply for Secondary Items. Washington: 17 July 1970.
- Department of Defense Instruction 7000.1: Resource Management Systems of the Department of Defense. Washington: 22 August 1966.
- Department of Defense Instruction 7040.5: Definitions of Expenses and Investment Costs. Washington: 1 September 1966.
- Department of Defense Instruction 7420.1: Regulations Governing Stock Fund Operations. Washington: 26 January 1967.
- Department of Defense Instruction 7420.11: Chart of Accounts and Financial Reports for DOD Stock Funds. Washington: 10 June 1964.
- Hayes, E. E. Aspects of Department of the Army Repair Parts Financing. US Army War College, Carlisle, PA, March 1971. (LD 26214)
- Heston, J. J. The Air Force Stock Fund. Air Force Comptrollers: July 1970 Volume 4 #3.
- Lewis, R. E. An Investigation of Variable Operating and Safety Levels. Naval Post Graduate School, Monterey, California: March 1974. (LD 31225)
- Logistics Management Institute Task 66-24: Supply System Management in the Working Capital Fund Environment. Washington: November 1966.
- Logistics Management Institute Task 72-2: Financing of Army Inventory. Washington: June 1973. (AD 770813)
- Lobue, J. Managing Excesses in the Air Force Stock Fund. Air Command and Staff College, Maxwell Air Force Base, Alabama: May 1973. (LD 30203)
- Logistics Systems Policy Committee. Logistics Systems Plan "LOGPLAN" FY 1975 - FY 1981. Washington: 30 October 1974.
- Peck, L. W. A Study of Navy Stock Fund Management. Air Force Institute of Technology, Wright Patterson Air Force Base, Ohio: February, 1971. (LD 26598)

- Strebeck, G. Effect of Constraints on Management of an Economic Order Quantity. Air Force Institute of Technology, Wright Patterson Air Force Base, Ohio: August, 1973. (LD 29876)
- US Army Logistics Evaluation Agency. Financing of Army Inventory. New Cumberland, PA: June 1973. (LD 26535A)
- US Army Materiel Command Institute of Logistics Research. Frequency of Requirements Determination. Fort Lee, Virginia: October 1974. (ADA003227)
- US Army Materiel Command Inventory Research Office. Selected ATAC Supply Control Studies. Frankford Arsenal, Philadelphia, PA: 28 January 1966.
- US Department of the Army. Army Regulation 37-12: Billing, Collection and Accounting of Sales of Materiel from Supply System Stock. Washington: 21 December 1973.
- US Department of the Army. Army Regulation 710-1: Centralized Inventory Management of the Army Supply System. Washington: 30 December 1970.
- US General Accounting Office. Report to the Congress. Department of Defense Stock Funds--Accomplishments, Problems, and Ways to Improve. Washington: 2 April 1974. (UA23 A59W55)
- Woods, C. Materiel Support Within a Non-Revolving Stock Fund. Air War College, Maxwell Air Force Base, Alabama: April 1974. (LD 30757)

